

IN THE CLAIMS:

1-142. (Cancelled)

143. (Original) A method for making a palladium-containing film, the method comprising the steps of:

applying a layer of paste to a substrate, said paste including particles dispersed in a carrier liquid, said particles including a metallic phase with greater than about 10 weight percent palladium, said particles having a weight average size of from about 0.1 micron to about 4 microns;

removing said carrier liquid from said layer of paste and forming on said substrate a film including palladium from said particles;

wherein, said metallic phase is substantially polycrystalline with a mean crystallite size of larger than about 50 nanometers and said particles have a resistance to oxidation of said palladium in said particles such that, when said particles are heated in an atmosphere of industrial grade air at atmospheric pressure to a temperature of 900° C at a heating rate of about 10° C per minute during thermogravimetric analysis, said particles demonstrate a maximum weight gain of no greater than about 40 percent relative to a theoretical weight gain for complete oxidation of said palladium in said particles.

144. (Original) A method for making a palladium-containing film, the method comprising the steps of:

applying a layer of paste to a substrate, said paste including palladium-containing particles dispersed in a carrier liquid, said particles having a weight average size of from about 0.1 micron to about 3 microns;

removing said carrier liquid from said layer of paste and forming on said substrate a film including palladium from said particles;

wherein, said particles having a size distribution such that greater than about 90 weight percent of said particles are smaller than about twice said weight average size and said particles including a first material phase comprising palladium and a second material phase being substantially free of palladium.

145. (Original) The method of Claim 144, wherein:

said first material phase comprises greater than about 50 weight percent of said particles.

146. (Original) The method of Claim 144, wherein:

said second material phase comprises less than about 30 weight percent of said particles.

147. (Original) The method of Claim 144, wherein:
said first material phase is electrically conductive and said second material phase is dielectric.

148. (Original) The method of Claim 144, wherein:
said substrate comprises a dielectric material for a capacitor and said second material phase of said particles also comprises said dielectric material.

149. (Original) The method of Claim 144, wherein:
said dielectric material is a titanate.

150. (Original) The method of Claim 144, wherein:
said second material phase comprises an oxide material.

151. (Original) The method of Claim 144, wherein:
said second material phase comprises a ceramic material.

152. (Original) The method of Claim 144, wherein:
said step of forming on said substrate a film including palladium from said particles comprises heating said particles, on said substrate, to a temperature of greater than about 300° C.

153. (Original) The method of Claim 144, wherein:
said method further comprises preparing a structure of stacked layers including a plurality of first layers including a dielectric material and second layers including said particles; and
heating said structure to a temperature of greater than about 300° C to form a microelectronic structure including a plurality of palladium-containing films, having palladium from said particles, and including a plurality of dielectric layers, with at least one of said dielectric layers being between two adjacent of said palladium-containing films.

154-167. (Cancelled)